

**BEFORE THE**  
**FEDERAL COMMUNICATIONS COMMISSION**  
**Washington, D.C. 20554**

In the Matter of	)	
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The LightSquared Technical	)	IB Docket No. 11-109
Working Group Report	)	
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To: The Commission

**COMMENTS OF UNITED PARCEL SERVICE, INC.**

Pursuant to Section 1.415 of the Federal Communications Commission ("FCC" or "Commission") Rules and Regulations, United Parcel Service, Inc. ("UPS") submits its Comments in response to the Commission's request for public comment on the Technical Working Group Final Report and LightSquared's recommendations regarding same as set out in the Commission's June 30, 2011, Public Notice. For the reasons set forth below, UPS urges the Commission immediately to withdraw LightSquared Subsidiary LLC's ("LightSquared") waiver authorizing deployment of upper channel Ancillary Terrestrial Component ("ATC") and stay lower channel ATC authorization until studies requested by the Department of Defense ("DOD"), the

Department of Transportation ("DOT"), and RTCA, Inc. conclusively demonstrate no harmful interference to existing users of the Global Positioning System ("GPS").

In this request, UPS associates itself with the views expressed by numerous participants in this proceeding—including the Departments of Defense and Transportation, the Air Transport Association of America ("ATA") and the International Air Transport Association ("IATA")—that the terrestrial facilities that LightSquared proposes to deploy pose an unacceptable threat to the operation of GPS and, accordingly, to the functioning of U.S. transportation networks, on which the nation's commerce and economy rely.

The magnitude of the potential damage from the interference set out in various pleadings and letters from expert authorities makes clear that LightSquared should under no circumstances be permitted to commence operations until these widespread interference concerns are fully examined and resolved with certainty. The risks to commerce and aviation are simply too great to justify LightSquared's deployment. In the event—which UPS considers likely—that these concerns cannot be resolved, the authority earlier granted to LightSquared should be permanently withdrawn.

UPS is a global leader in logistics, offering a broad range of solutions including the transportation of packages and freight; the facilitation of international trade, and the deployment of advanced technology to more efficiently manage the

world of business. Headquartered in Atlanta, UPS has 400,600 employees worldwide (330,600 U.S.; 70,000 International) and serves more than 220 countries and territories worldwide.

UPS carries six percent of the U.S. gross domestic product and two percent of global GDP in its trucks and planes to every corner of the globe, every day. This rapid, efficient, and reliable air cargo and express service is a critical element of the international infrastructure of commerce, and the nation's economic strength. To provide this global service, UPS operates a fleet of approximately 224 highly-sophisticated aircraft whose safe and efficient operation depends on GPS. Interference of any kind to this system—including interference likely to result from LightSquared's recent "fallback" proposal<sup>1</sup> to limit deployment to the lower frequency—would pose a threat not only to UPS's business, but to the safety of civilian and military flight itself. For that reason alone, the risk is unacceptable.

There are no "easy fixes" to the threat to aviation posed by LightSquared's proposal. GPS cannot be reconfigured at the flip of a switch, nor can GPS aviation receivers be readily modified to accommodate LightSquared's preferences. Merely developing and promulgating internationally harmonized standards for such products, much less actually developing, certifying, and installing them, would take years and impose huge costs.

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<sup>1</sup> See LightSquared's 58-page "Recommendation" that accompanied the TWG's final report (FCC's ECFS)

Nor could equipment and technologies that rely upon GPS be replaced without vast impact and expense to existing and planned uses of GPS that are vital to aviation and commerce – including the multi-billion-dollar Next Generation (“NextGen”) air navigation program developed under the leadership of the Federal Aviation Administration (“FAA”). UPS has been a strong and consistent advocate of NextGen, believing it essential to the future safe and efficient use of U.S. airspace. Given the already daunting challenges to the rapid realization of NextGen, the last thing the nation needs is interference to GPS, a system so core to NextGen that it would mean lengthy deferral and recasting of the program, not to mention the direct loss of millions of dollars for equipment already built, purchased, and installed by or on behalf of UPS and other air carriers.

The international aviation community’s condemnation of the LightSquared proposal speaks volumes about the need for the Commission to correct this situation. The European Commission has expressed “deep concerns” that LightSquared could disrupt their Galileo GPS system, which will be operational by 2014/15<sup>2</sup>. The International Civil Aviation Organization (“ICAO”), a technical agency of the United Nations, has expressed its similarly “grave concern,” believing that the LightSquared proposal will have a far-reaching impact on aviation operations beyond U.S. borders<sup>3</sup>. ICAO asks that the United States not jeopardize its longstanding commitment to the global aviation community to provide GPS service

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<sup>2</sup> Letter to FCC Chairman Genachowski dated July 19, 2011 from Henry Zourek, Director General, European Commission Directorate General for Enterprise and Industry.

<sup>3</sup> Letter to FCC Chairman Genachowski dated June 13, 2011 from Roberto Gonzalez, President of Council, and Raymond Benjamin, Secretary General, of the International Civil Aviation Organization.

for aviation throughout the world. UPS shares these deep concerns and joins the international plea to the FCC.

Even aside from its potentially critical effect on the efficiency and safety of UPS's aviation operations, LightSquared's threat to GPS could also undermine UPS's massive daily truck delivery operations across the country. Each of UPS's 50,000 delivery trucks in the United States is equipped with a Delivery Information Acquisition Device ("DIAD") on which UPS drivers rely to pick up and deliver packages accurately and efficiently. These DIADs depend directly on GPS. Degrading GPS as threatened by LightSquared's proposal would handicap the UPS package delivery system on which many millions of Americans and U.S. businesses depend every day. A slower, less efficient, and less dependable system would translate into huge cost increases, both direct and indirect, for our customers across the country and the world. UPS notes further that it uses GPS technology in numerous other applications that are essential for safety and security functions. For business and security reasons, UPS will not detail these economically and operationally significant applications here.

At the request of the FAA, RTCA studied extensively the impact on aviation use of GPS from LightSquared's *original* ATC deployment plan<sup>4</sup>. UPS actively participated in the RTCA study, and fully endorses its findings. The RTCA report is foundational to the aviation sub-team's section of the Technical Working Group's

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<sup>4</sup> See RTCA, Inc., Assessment of the LightSquared Ancillary Terrestrial Component Radio Frequency Interference Impact on GNSS L1 Band Airborne Receiver Operations, Jun. 3, 2011.

Final Report<sup>5</sup>. The TWG, however, is incorrect to characterize the RTCA study as suggesting that "a shift to using only a lower 5 MHz channel likely would be compatible with aviation GPS operations"<sup>6</sup>. The RTCA study hardly supports this LightSquared "fallback" plan, nor could it, since it analyzed only five discrete scenarios and did not determine the true worst-case scenario. In these circumstances, the study's conclusive recommendation for "further study" appears unassailable.

For the foregoing reasons, UPS respectfully urges the Commission to conclude that LightSquared's proposed terrestrial service is thus far proven to be incompatible with GPS operations critical to aviation and, in particular, UPS's ability to operate reliably, efficiently and safely. At a minimum, the Commission should immediately withdraw LightSquared's waiver authorizing upper channel ATC deployment and stay lower channel ATC authorization until the studies called for by

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<sup>5</sup> See sec 3.1 of Final Report of the Technical Working Group.

<sup>6</sup> Id at page 28.

DOD, DOT, and RTCA are conducted and evaluated and an opportunity is granted for all interested persons to comment on them.

Respectfully submitted,

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